

LIQUID CRYSTAL DISPLAY ASSEMBLY FOR REDUCING OPTICAL DEFECTS

ABSTRACT OF THE DISCLOSURE

An improved packaged liquid crystal display (LCD) assembly is described. A recess is used to house a support material while the LCD cell 609 is positioned at least partially within the containment structure. A plurality of spaced apart stabilizers are attached from the sides of the LCD cell 609 to the substrate without transmitting residual stresses induced during fabrication and operation. A support material is dispensed in the recess such that it provides support for the LCD cell 609 without transmitting residual stresses from the substrate. The described arrangements permit an LCD assembly which minimizes the amount of forces and stresses that lead to optical defects. The stabilizers, in addition to supporting the cell, also act to contain the encapsulating material used to protect the bonding wires. The support material, in addition to minimizing transmission of stresses, also provides improved heat dissipation from the LCD cell 609. In another embodiment, a method for constructing the LCD assembly is described.